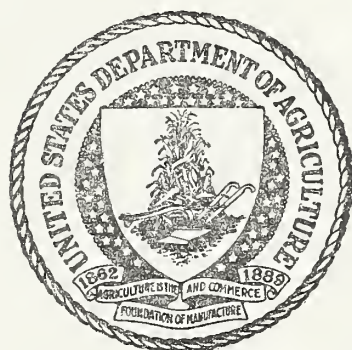


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A SUMMARY OF THE UNITED STATES
EXPERIENCE WITH SELECTED ASPECTS OF
AGRARIAN REFORM



Prepared in the
Land and Water Research Branch
Farm Economics Research Division
Agricultural Research Service
UNITED STATES DEPARTMENT OF AGRICULTURE

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PREFACE

"Agrarian reform" studies in the United States are the responsibility of no single department or agency. Information on agrarian reform activities has been assembled from time to time in response to requests of international organizations and the State Department. As many activities are the responsibility of two or more Departments of the Federal Government, the assembly of the information has usually been accomplished through the creation of an ad hoc interdepartmental committee. Members of these committees accept assignments pertaining to their interests, assemble data, and submit written materials for editing and integration into the final report. Since no provision is made for keeping the information up to date, this statement was prepared by revising the reports prepared in 1953, 1955, and 1957. The report is believed to be accurate, but there was not time enough to check all relevant sources.

CONTENTS

	<u>Page</u>
PREFACE-----	2
AGRARIAN REFORM DEFINED-----	4
LIMITATIONS OF APPLYING UNITED STATES EXPERIENCE TO OTHER COUNTRIES--	4
ITEMS OF AGRARIAN REFORM-----	5
1. Security of Tenure-----	6
2. Opportunity to Acquire Ownership of Land-----	7
3. Organization of Land Holdings of Efficient Size, Either by Dividing Large Holdings or Combining Fragmented Holdings-----	10
4. Opportunity for Ownership on Newly Reclaimed Lands-----	12
5. Agricultural Credit-----	13
6. Rental Rates-----	16
7. Tax Structure and Administration-----	18
8. Farmer Cooperatives-----	20
9. Establishment of Rural Industries-----	22
10. Rural Education-----	24
11. Agricultural Research-----	25
12. Agricultural Extension Services-----	27
13. Agricultural Labor Standards-----	29
14. Allocation and Development of Water Resources-----	32
15. Rural Zoning-----	34
16. Technical and Financial Assistance for Land and Water Resource Development-----	36
17. Recent Changes in the Tenure Pattern of the United States-----	38

A SUMMARY OF THE UNITED STATES EXPERIENCE WITH SELECTED ASPECTS OF AGRARIAN REFORM

AGRARIAN REFORM DEFINED

In the view of the United States Government, the term "agrarian reform" means primarily the improvement of agricultural institutions with the objective of improving rural levels of living. These institutions pertain to such methods as the holding and transmitting of rights in land through ownership and tenancy, allocating returns to land between owners and tenants, taxing land values and land income, extending credit for land purchase and farm operation, developing marketing procedures and broader opportunities for education and training, health and welfare, and disseminating information relative to resource utilization on the farm and in rural areas.

LIMITATIONS OF APPLYING UNITED STATES EXPERIENCE TO OTHER COUNTRIES

The land-tenure system of the United States was borrowed almost entirely from English common law, and, aside from the barring of primogeniture and entail, has not been substantially modified. Nor were the rather far-reaching innovations adopted by the English during the course of the last century duplicated in the United States. Under the United States legal system, the powers not delegated to the Federal Government are retained by the States. Except for original patents granted by the Federal Government when land was transferred from the public domain, the acquisition and transfer of rights in land and contractual arrangements are governed by State laws. In general, the same laws cover urban and rural property. Water rights held by private interests are governed also by the laws of the 50 States. In most humid States, the riparian system is followed; in the arid States, the appropriation system is in use. Some States have a combination of the two systems. The legal structure of tenure of land and water has changed very little, although there has been much discussion of the need for improvements.

In analyzing the United States experience, certain favorable circumstances should be considered. At the outset of settlement, the United States possessed a vast abundance of natural resources; land existed in such quantities that need for its conservation was not recognized. Farms were opened, exploited and abandoned, and new lands were taken up in the West. Land was almost free at the time the tenure system was being established. Population increased rapidly in the forepart of the 19th century, but long before the supply of free land was exhausted, the industrial development was underway. The geological deposits of metallic ores and fuel facilitated the rapid industrialization

of the economy and provided for much nonagricultural employment for the rapidly increasing population in the last half of the last century. The balanced nature of the natural resources permitted rapid industrial development, which eased the pressure of labor on agricultural land and prevented tenure problems from becoming severe after the supply of free land was exhausted.

Expanding industrial employment has continued almost without interruption, and technical improvements in agriculture have enabled fewer people to supply the Nation's food requirements. The non-agricultural sectors of the economy have been able to absorb, with some lag, farm labor rendered surplus to agriculture by technical improvements.

The migration from farm to nonfarm employment has resulted in a continuing increase in farm size. The shifts in ownership and the regrouping of ownership tracts into larger farm-operating units has been accomplished by individual action of landowners and operators, with limited public assistance in credit, research, and education. Government programs for price support and production control have affected these trends indirectly.

One major problem has been a tendency for land values to run ahead of land income. In the early 1920's, and again in the 1930's, the prolonged periods of low farm income resulted in collapses of land values and thousands of farm foreclosures. With recovery of both farm and nonfarm incomes, land values have again reached record levels. Whether these values could be maintained if periods of low farm incomes were to return is questionable.

The tenure system used in the United States has had an exceptionally favorable environment in which to function--an environment not likely to be duplicated elsewhere in the world in the foreseeable future. Any serious student of tenure problems would hesitate to offer it as a model solution to the land use and tenure problems of the farmers of the world.

ITEMS OF AGRARIAN REFORM

In the United States, laws of the respective States govern the relations between people with respect to property in land. Federal action with respect to agrarian reform, then, is normally indirect, as in credit, research, education, and technical assistance. Brief summaries of the Federal actions with respect to the more important aspects of "agrarian reform," follow in the succeeding sections of this report. Most of the items are those included by the United Nations in their inquiries on progress in agrarian reform, but certain items that bear particularly on the United States experience have been added.

1. Security of Tenure

No laws relating directly to security of tenure of tenant cultivators have been enacted by the Federal Government, 1/ and while Federal legislation relating to agriculture sometimes includes safeguards for the rights of tenant farmers, these provisions actually contribute very little, if any, to the security of tenure of these farmers. By and large, such areas of legislative action have been reserved to the several States. In general, the States, with one exception, have taken no recent legislative action in this regard. 2/

The lack of direct action to provide greater security of occupancy for tenants, at both the State and Federal levels of government, results largely from a policy of encouraging, and assisting through credit programs, the ownership of land by the users of the land rather than undertaking the improvement of tenancy.

The security of occupancy of the tenant farmer and the cost of moving and its effect on farming efficiency, land use, and family life have been the subject of widespread research and education for some time. Lease forms and explanatory materials stress the importance of tenure security to farming efficiency on privately owned lands; long-term and automatically continuing leases are often used on State and Federal lands rented to farmers. The 1954 Census of Agriculture revealed that 44.5 percent of all tenant farmers had occupied their farms for less than 5 years, whereas in 1930 the corresponding percentage was 73.7. But perhaps this apparent increase in tenure stability should not be attributed to the effectiveness of various information programs, as major changes occurred throughout the entire economy during this period. These changes included a decline of nearly 50 percent in the rate of tenancy from 1930 to 1954.

1/ Two minor exceptions should be noted. With respect to Indian lands, the leasing of which is subject to Federal regulation, a modification of the legal structure governing leases has been effected. The objectives of the modification is to increase the length of tenure of leases of Indian lands to those who use the lands for certain purposes. A law authorizing the leasing of Indian lands for periods of 10 to 25 years for agricultural and other purposes was approved in August 1955. Also, lessees of Federal land are given priority on renewals and extensions.

2/ An Iowa law enacted in 1939 provides that all agricultural leases shall continue automatically from year to year in the absence of a notice of termination given at least 4 months prior to the end of the lease year.

2. Opportunity to Acquire Ownership of Land

Landownership opportunities during the settlement of the United States existed under unique and, in a sense, ideal circumstances. Large quantities of fertile land awaited settlement and development by a relatively small population. All unsettled land claimed by the 13 original States in 1781 became public domain, as did all land in subsequent acquisitions. This great quantity of land was an important asset to the young government, but it was also a vital issue on which there was much debate relating to the purpose this land should serve and who should be allowed to own it.

All of the leaders in government favored an early settlement of the public domain, but there were different opinions as to how it should be transferred to private ownership. One group favored sale of the land to the best financial advantage of the government to provide a source of treasury funds. A second group representing the pioneers wanted easy access to the land, small units, and a nation of farmers who personally worked their own land. The first plan would have restricted land settlement and encouraged the formation of a landed aristocracy, as most of the settlers had very little money and could not compete in the bidding for large tracts of land. The second plan would have promoted rapid land settlement by owner-operators and a semiequalitarian society based on democratic principles.

By 1804, a land policy had emerged which placed less emphasis on the public lands as a source of revenue and provided greater opportunity for settlement and growth. Land was to be sold for \$1.25 per acre, in tracts as small as 160 acres and squatters preemption rights were to be observed. One section in each township was to be designated for schools. Thus the pattern of family farms was established for much of the midcontinent area of the United States.

Sale of land to speculators and Federal gifts of land to individuals for military service, as well as to companies for incentives to develop a transportation system across the country, resulted in a growing demand by settlers for free land. The Homestead Act was passed in 1862 after much of the humid midwest had been settled. This act provided 160 acres of free land to a farmer after he had improved the land and lived on it for 5 years. The limitation on size proved to be a detriment in many instances, however, as much of the land yet to be settled was in dry areas and 160 acres would not support a family. The passage of the Homestead Act marked the end of the rapid expansion of the frontier and succeeding policies encouraging owner-operatorship of farms became involved with credit facilities available to farmers.

It is unlikely that any country seeking information about land reform will find an exact parallel between the settlement experience of the United States and the agrarian problems of their own country. Observation of the farm credit system used in the United States, however, may help in understanding the problems of some countries.

In 1916, following a period of unsatisfactory experience with private credit sources in meeting the need for long-term, low-interest loans for purchases of farmland, the Federal Government created a system of 12 cooperative loan agencies, which were eventually to be owned by the farmer-borrowers, and a system of privately owned land banks--all to function under governmental supervision. The objective was to provide long-term (20- and 33-year) loans, which would be repaid in annual installments, at a rate of interest below that prevailing in the farm mortgage markets.

The system has functioned fairly well, and in addition to having contributed to a reduction in the mortgage interest rate, it is believed to have been responsible for the lengthening of the term of subsequent farm mortgages issued by all types of lenders. There is no doubt that many farmers have been assisted directly to farm ownership by receiving land bank loans, and that many more have been helped indirectly by the acceptance of the long-term provision.

From 1916 to 1933, loans by land banks were limited to 50 percent of the long-run normal appraised value of the farm offered for security. After the wave of foreclosures in the early 1930's, this maximum was raised to 75 percent of the appraised value by providing for second-mortgage loans, but this increase was not enough to enable a significant number of those who had lost their farms to regain ownership status.

In an effort to stem the rising tide of farm tenancy, a special type of land-purchase credit program was devised and enacted into legislation as the Bankhead-Jones Farm Tenant Act of 1937. This Act provided 100-percent farm loans to selected, low-income farmers who could not obtain credit at reasonable rates from any other source. In the early years of the program, most of the loans were for farm purchase. Today, most of the credit is used to enlarge undersized and develop under improved farms. In addition to liberal loans at a low interest rate, the lender received technical assistance, special guidance, and supervision. The program is presently administered by the Farmers Home Administration, an agency of the U. S. Department of Agriculture.

Prosperity engendered by the high prices during and after World War II alleviated the pressing demand for more credit and no major changes have been made in the farm credit policies of the United States since the Farmers Home Administration was established in 1946.

In 1935, 42 percent of the farmers were tenants, while in 1954 only 24 percent rented all of their land. The greatest reduction in tenancy occurred in the World War II decade, 1940-50, when the farm population was reduced drastically because of military employment. Competition for farmland was lessened, and concurrently farm-product prices started to increase at a rate much greater than the rate of increase in land values. The ensuing prosperity made ownership an easily obtainable goal for the first time in more than 30 years, and the decline in tenancy between 1940 and 1945 was the greatest of record. It might be suggested that the proportions of farmers who own or rent their farms are more strongly influenced by general economic factors than by national policy intended to assist owner-operatorship.

3. Organization of Land Holdings of Efficient Size, Either by Dividing Large Holdings or Combining Fragmented Holdings

Land policy objectives in the United States have revolved around the family farm - a farm of sufficient size to provide a fairly adequate family income and utilize the management and available labor of the farmer and his family with perhaps some additional seasonal labor. Federal recognition of squatters' rights, sale of land in family-sized units to settlers, and finally gifts of land for homestead claims promoted settlement of farms of moderate size. Farmers enjoyed considerable freedom of choice in the management of their affairs during the growth and expansion period of the 19th century. They could enlarge their farms, use soil-management practices at their own discretion, and dispose of their property as they desired. This freedom is still enjoyed by farmers in the United States.

Public programs initiated during the 20th century have been directed toward development of family-sized farm units. Irrigation and reclamation projects were developed and subdivided into family-sized units or into what was thought to be family-sized units. In some instances, they were too small. Agricultural credit, as discussed in a separate section, was also designed to encourage owner-operation of farms of moderate size.

It is unlikely that family-sized farms could have survived if they had not been reasonably efficient as a way of combining resources. The economies of scale associated with most nonagricultural industries are less significant in agriculture; thus the tradition of family-sized farms continues.

No measures are being undertaken on any appreciable scale to alter the size of holdings. A limited amount of Federal loan funds has been used to increase the acreage of inefficient owner units, but again only a small number of farmers have had this assistance.

A suggestion to promote a policy of "homesteads in reverse" has been put forth by some individuals. This program would increase the off-farm migration rate of low-income farmers located on small farms and make available to remaining farmers additional land for a more efficient operating unit. Payments would be made to small farmers, thus increasing their mobility and willingness to move to nonfarm jobs. This program has been discussed by economists, but it has not been implemented by either the Federal or State governments.

Major trends in agricultural production indicate that the optimum size of family farm is increasing. Capital requirements of farm operations are increasing, while labor requirements are decreasing. This has resulted in an increase in average farm size from 145.1 acres in 1925 to 242.5 acres in 1954. Fortunately, nonfarm industries have been able to absorb most of the displaced farmworkers, and no critical problems have developed because of an oversupply of labor in agriculture. If nonfarm jobs had not been available, it is likely that the mechanization of U.S. farms might have proceeded more slowly.

Throughout the last several decades, much of the education and research conducted by agricultural colleges, agricultural experiment stations, and extension services have been oriented toward family-farm living and how efficiency on such farms can be improved. Any arbitrary assignment of part of the costs of such services to the continuation of family-sized farms would be meaningless as many of these services are equally beneficial to other types of farms. No attempt is made to recover the costs of education and research; it is believed that all of society is benefited by the increased efficiency which results from the application of improved management and adoption of new technology.

Although there are a great many more small than large farmers, no proposal of taking from the large and giving to the small has ever been seriously entertained. Many of the small farms are operated by part-time farmers who use the farm income merely to supplement their regular incomes and use their farms as residences. At least one State has considered (but not enacted) a progressive land tax, which would be more burdensome to larger than to smaller landowners, as a means of encouraging land redistribution.

No program has ever existed for the consolidation of fragmented holdings. Because of the usually decreasing farm population and the willingness of heirs who have moved to cities to accept money in lieu of land in estate settlements, fragmentation has never been considered a problem in the United States.

Settlers of the frontier had an intense desire to discard the feudalistic landlord system they had known in Europe and to seek individual ownership of the land they operated. This longing for independence, coupled with the rectangular survey system used in much of the United States, resulted in a pattern of dispersed farmstead settlement that differed greatly from the village system of Europe. Dispersed farmstead settlement was further encouraged by the Preemption Acts and the Homestead Act, which required actual residence on the cultivated land. Important socio-political-economic effects were engendered by the dispersed farmstead system: For example, community churches and schools became the hubs of the social life of isolated farm families and political activity centered around county seat towns, with limited activity taking place for local township offices. Development of the transportation system played an important part in solving the marketing and communication problems of farmers living on widely scattered farmsteads.

4. Opportunity for Ownership on Newly Reclaimed Lands

By 1890, practically all arable land had been appropriated by homesteaders, but the demand for additional cropland continued. The Carey Act of 1894 was intended to recognize these needs through the grant of a million acres to each State containing arid lands on condition that the State provide the necessary reclamation. Each State usually contracted with construction companies to reclaim specified areas and to sell "water rights" as a means of recovering their investments. Land was sold by the State at nominal prices, but only to purchasers of "water rights." This plan was not entirely successful; many unsound projects were undertaken.

In 1902, the Reclamation Act brought a new concept into being by enabling the Federal Government to build large multiple-purpose dams. It provided a more extensive irrigation system to be developed through the use of funds without interest; facilities for low-cost hydro-electric power; and downstream flood protection. The Reclamation Act created a revolving reclamation fund to be used for construction of storage dams and the canal systems necessary for irrigation. Settlers received free land under arrangements similar to those under the Homestead Act, but they were to repay in 10 years, without interest, the cost of the structures built by the Government. This time limit was later increased.

Fundamental objectives of the Reclamation Act were to: provide opportunity for the maximum number of settlers on the land, distribute widely the Government subsidy involved with interest-free funds for irrigation, and to promote family farms as a desirable type of rural life. To accomplish these goals, entry on reclaimed lands was restricted under the Homestead Act to farm units of not less than 40 acres nor more than 160 acres. (Exception was made for fruit and garden farms for which some 10-acre farms were allowed.) A private owner who held land near a reclamation project prior to reclamation could not obtain water rights until he had disposed of all but 160 acres of irrigable land.

New farms made available through reclamation activities constitute a very small fraction of the total number of farms in the United States, and at no time have they become available in sufficient quantity to offset the loss in numbers resulting from farm consolidation - that is, rapidly enough to cause an increase in the total number of farms.

5. Agricultural Credit

Credit for the purchase of land was treated under item 2, "Opportunity to Acquire Ownership."

Credit for operating purposes is available to individual farmers through commercial banking facilities. The amount loaned depends upon the farmer's collateral position, and the interest rate is somewhat higher than that charged for real estate loans.

To supplement the non-real-estate credit from private sources, the Government has assisted in the establishment of credit cooperatives and has made direct loans through its low-equity financing agency, the Farmers Home Administration. The production credit corporations were established in 1933, with the Government subscribing to stock to provide an operating basis, although it was the intention of the legislation that the cooperatives would eventually be owned by the farmers. By the end of 1934, the Government stock subscriptions amounted to \$112 million. The general prosperity during and following World War II permitted the borrowers to retire the Government investment rapidly. The Government stock subscription was down to \$36 million by 1953 and the original investment in class A stock of \$90 million in 1934 was down to \$6 million.

Although their origin was the emergency of the depression period, the cooperative production credit agencies have continued to be an important source of operating credit. In 1958, they loaned approximately \$1.8 billion of the \$8.5 billion operating credit used in 1958.

The Farmers Home Administration administers a variety of credit programs, most of which have as their main objective helping farm families become successfully established in farming. The agency also provides emergency loans for farmers who, because of drought, floods or similar disasters, need a supplemental source of credit.

The agency was established in 1946. Some of the programs it administers have their origins in the thirties; others came into being in recent years.

Loans are made by the Farmers Home Administration only when farmers and ranchers are unable to obtain the credit they need from other sources.

With the loans, borrowers receive, to the extent necessary, the assistance of the agency's county supervisors in preparing farm management plans, in keeping farm records, in obtaining advice on farm problems, and in analyzing problems encountered and progress made during the farming year.

All applications for loans are made and all loans are serviced through the county offices of the Farmers Home Administration, which are usually located in county-seat towns. A county committee of three

people, at least two of them farmers, determines the eligibility of applicants, certifies as to the value of farms to be bought or improved, and reviews borrowers' progress.

Security is taken for all loans. Borrowers agree to refinance their loans with other lenders when they reach the point at which they can do so.

Loans made and insured by the Farmers Home Administration during fiscal 1959 totaled approximately \$362,000,000. Loans outstanding as of June 30 totaled more than \$1,100,000,000.

The credit services of the agency can be divided into two broad categories, operating credit and real estate credit.

Operating Credit

Most of the operating loans made by the agency are made primarily for developing and strengthening family-type farms.

Trained farm management specialists assist operating-loan borrowers in the development of annual and long-time farm plans, provide on-the-farm advice in farm and money management, and analyze progress made during the year. Funds may be advanced to pay for equipment, livestock, feed, seed, fertilizer, and for other farm and home operating needs and to refinance chattel debts. The loans are made at 5 percent interest for a period not to exceed 7 years.

The size of the loans varies considerably, depending upon the system of farming to be followed and the needs of the applicant. The average operating loan to new borrowers during fiscal 1958 was \$5,400. A borrower's total indebtedness for operating loans may not exceed \$20,000.

Ordinarily, loan funds advanced for operating expenses during a crop year is repaid when that year's income is received. Funds loaned to buy such items as livestock and equipment are scheduled for repayment as rapidly as possible, with payments based on the income to be received each year after reasonable expenses are met.

During fiscal 1959, operating loans totaling \$188,500,000 were made to 74,405 farmers. As of June 30, 1959, the outstanding indebtedness on operating loans was \$380,000,000.

In addition to the regular operating loans described above, the agency also provides, at an interest rate of 3 percent, emergency credit in areas where droughts, floods, and other natural calamities result in widespread production losses and bring about need for supplemental credit. Loans are made for the purchase of feed, seed, fertilizer, replacement of equipment and livestock, and for other essential farm and home operating expenses.

Emergency loans are scheduled for repayment over the minimum time consistent with the borrower's ability to repay. Loans for crop production are scheduled for repayment when the income from the crop is to be received. Loans secured by real estate can be repaid when necessary over periods up to 10 years.

In fiscal 1959, emergency loans totaling \$39,851,000 helped 11,405 farmers resume normal operations.

Real Estate Improvement Loans

Most of the real estate loans made by the agency was made primarily for developing and purchasing family-type farms. This phase of the real estate loan program is covered in detail under item 2, "Opportunity to Acquire Ownership." In addition, the Farmers Home Administration also makes real estate loans for soil and water conservation, farm housing, and watershed development.

Soil and water conservation loans are made to individuals and to groups of farmers to carry out measures for soil conservation and to develop systems for irrigation and farmstead use. Maximum repayment period is 20 years for individuals, and 40 years for associations. The interest rate is 5 percent. An individual's total indebtedness for soil and water conservation loans cannot exceed \$25,000 and an association's total indebtedness cannot exceed \$250,000.

Farm housing loans are made to farm owners for the construction and repair of farmhouses and other essential farm buildings. The loans bear interest at 4 percent and are repayable over periods up to 33 years. Loans are made only on farms that will produce a substantial part of the operator's annual cash income and are large enough to be considered a farm rather than a rural residence. Loans are not made for buildings that would cost considerably more than adequate buildings on other farms in the community.

Watershed loans are made to help local organizations finance their share of the development of land and water resources in small watersheds. Loans are scheduled for repayment within the shortest period consistent with the borrower's ability to repay. The repayment period cannot exceed 50 years. The interest rate is set each year. For the 1960 fiscal year, the rate is 2.699 percent. The total amount of indebtedness for all watershed loans for any one watershed project, whether made to one or more borrowers, cannot exceed \$5,000,000.

6. Rental Rates

Measures have never been enacted to control rents on agricultural land, even though the control of urban rentals was the subject of extensive legislative attention during World War II. Agricultural rentals during this period, however, did not present acute problems for the following reasons: (1) Farm income has increased more rapidly than either land prices or costs of production. This has left the tenant in a favorable position, whether he pays cash or share rent. (2) Population movement from the farm to the city in recent years placed the tenant farmer in a relatively favorable bargaining position with the landlord.

Research and education have been used to cite the advantages of adjusting fixed cash rentals to changes in yields and prices. Variable cash rental rates, however, have not become prevalent, as most rentals are on a share basis and usually adjust satisfactorily to changes in production and prices. In the case of cash leases, these adjustments are reasonably well cared for, owing to the ordinarily short duration of the lease contract, which permits reconsideration of the rental rate at frequent intervals.

Adjustment in leasing practices to ensure that tenants' improvements do not accrue to the landlord at the termination of the lease has been the subject of much research and education. Although the problem has not been recognized in legislative action, there appears to be increasing recognition by both landlords and tenants of the need for a compensation-for-improvement provision in farm leases.

Legislative measures relating directly to the elimination from tenancy agreements of onerous conditions, such as personal services or compulsory sales of produce to landlords, have not been enacted. Such conditions are not widespread in the United States, and some endeavor has been made by landlords and croppers themselves to reduce them. Economic conditions, which have contributed toward reducing the number of sharecroppers, have probably done much to restrict such practices. In addition, special credit has tended to reduce the impact of the "furnish system" upon tenant farmers. Fewer and fewer tenants find it necessary to depend on the landlord for subsistence during the crop season. In general, the tenant is free to buy and sell where he pleases unless his landlord has furnished him with food and supplies necessary to make the crop. This problem has not completely disappeared, however, and probably some disadvantaged tenants still carry the weight of such extra charges.

While the security of occupancy of landowners is greater than that of tenants, this security depends largely on the amount and type of encumbrances on the land. As owners' lands are frequently mortgaged, the best measure of the degree of tenure security of landowners is in their net worth, and their income potential. Speculation or overoptimism has frequently driven land prices to high levels. Farm mortgages have followed land prices upward, only to be followed in turn by a decline in farm commodity prices which has left tens of thousands of farmers with commitments that could not be met. Farm foreclosures on a wide scale have followed these cycles.

Early corrective action took the form of commodity price-raising measures. In the early 1930's, more direct measures were employed to protect the rights of heavily mortgaged farm owners. Under one, the Debt Adjustment Program, facilities were provided by the Federal Government for the establishment and operation of debt-adjustment committees in most agricultural counties of the country. These committees worked with borrowers and lenders to the end that many burdensome debts were scaled down. Some first, second, and third mortgages and other debts were consolidated and composed. Annual payments were reduced, and other means were used to bring the debt into line with the market value of the farms. These were voluntary, not compulsory, adjustments. Public opinion, the good will of the local committees, and the informational-educational services of the Government were used in effecting the adjustments.

Another action, which utilized both State and Federal legislation, was applicable to those problem cases that could not be solved by voluntary adjustments. This action declared a moratorium on foreclosure of debtridden farms. It was compulsory. That is, any farm owner who was threatened by foreclosure could apply to proper local authorities for a postponement of foreclosure procedures under well-established rules and regulations. This reform did not change the basic laws relating to mortgages. It merely suspended the application of these laws, under given circumstances, so that the farmers would have time to meet his obligations as the effects of drought and price depression wore off.

These two reform measures reduced by thousands the number of family farmers who otherwise would have lost their farms through foreclosure during the severe emergency. But their effectiveness was limited--tens of thousands of farmers lost their farms and were reduced to tenancy or unemployment.

7. Tax Structure and Administration

The method of taxing agricultural lands in the United States has changed little in the last 100 years. Many proposals have been advanced, among them such fundamental departures as redefining the base of the tax as applied to land, instituting a system of graduated rates, and even abolishing the tax altogether. The reforms that have come into practice are more limited in scope than were these proposals.

Homestead exemptions, a reform measure promoted in the 1930's by farmers and farm groups as a device to promote ownership among farm operators by lessening the burden of real estate taxes on owner-occupants, have been enacted in about a third of the States. The exemption is usually limited to a specified number of acres or dollar valuation, or a combination of the two. In recent years, the general rise in farm property values has tended to reduce the significance of a limited exemption to the farm owner, while the increased prevalence of homeownership in cities has greatly enhanced its significance to owners of nonfarm residences.

Taxes on real property are slow to adjust to changing economic circumstances. When farm incomes and property values fall sharply, as they did in the 1930's, the failure of property taxes to adjust downward may cause mass delinquency and a general breakdown of tax collections. In 1932, farm real estate taxes reached a peak of 18 percent of net farm income (this includes taxes and rent paid to nonfarm landlords), and \$1.52 per \$100 of the sale value of farmland and buildings. In 1958, by comparison, these levies averaged 6.7 percent of income and \$0.89 per \$100 of full value.

Most of the reform effort has been directed toward improving methods of property assessment, as the adverse economic effects associated with the system of land taxation can be traced largely to assessment inaccuracies. Most State governments now exercise some measure of supervision over local property assessment. The governmental machinery for assessment has been improved steadily, and more and more local assessors have available to them such aids as aerial photographs, land use-capability maps, and assessors' manuals, as well as expert technical advice. The National Association of Assessing Officers has pioneered in developing systematic assessing techniques, organizing training programs, and raising professional standards of assessors. There has also been cooperation between State and local assessing officials and college and university economists, agronomists, engineers, and other specialists.

A number of States have sought to encourage improved forest practices through tax rebates, exemptions, bounties, and in more recent years, forest-yield taxes. The latter exempt timber from the payment of annual property taxes and levy instead a tax at time of timber harvest. For the most part, these laws have been relatively ineffective. Recent thinking looks toward improvements in assessment practices under the property tax as likely to be more effective.

Land taxation is a potentially powerful device for helping to achieve the objectives of land policies. In the United States, however, the use of the land tax for such purposes is limited by the almost exclusively local nature of the property tax, and by the division of powers between the Federal government and the States and the States and their local subdivisions. As it has no control over the property tax, the Federal government is unable to use this means of implementing national land policy. State and local land policies, on the other hand, are likely to be even more restricted in scope; few of them can properly be called land policies.

Several provisions of the Federal Income Tax have special significance for agriculture. Beginning in 1954, farmers have been permitted to deduct as expenses their outlays for soil or water conservation or for the prevention of erosion, the aim being to encourage such expenditures. Legislation enacted in 1958, which enabled certain "small business corporations" to elect to be taxed as partnerships, removed the "double-taxation" disadvantage that has long been an obstacle to the incorporation of many family-sized farms. Cooperatives are encouraged by exemptions from certain taxes and by other special laws governing their operations.

8. Farmer Cooperatives

For 50 years, the U. S. Department of Agriculture has given its approval and assistance to farmers in their mutual efforts to organize and operate cooperative off-farm businesses as tools for improving farm income. Through these voluntary associations, farmers market their products and obtain farm supplies. They also obtain cooperatively many services essential to their farming operations, such as credit, insurance, electricity, and irrigation.

Under authorization of a Federal statute, the Department, through its Farmer Cooperative Service, assists farmer cooperatives through research, advisory service and educational activities. The Service does not incorporate, promote, or supervise these associations. Its work related to problems of management, organization, policies, merchandising, costs, efficiency, financing, transportation, and membership. These activities are carried on in connection with cooperatives engaged in marketing farm products, purchasing farm supplies, and supplying business services.

Loans to qualified farmer cooperatives are available through the central and 12 district banks for cooperatives, which are supervised by the Farm Credit Administration. These banks were established to provide a permanent source of credit on a sound business basis to farmer cooperatives. Cooperatives own part of the capital stock of each bank. They are increasing their investment in the banks by buying stock in proportion to their current interest payments and through the payment of patronage refunds by the banks in the form of stock. As the cooperatives' investment grows, Government-owned capital will be repaid. Incident to the normal relationships between lender and borrower, the banks make other services available to cooperatives. Objectives of these services are improved financial and organizational structure, sounder credit policies, better records, more complete audits, and development of increased director and member interests in each association served. During the fiscal year 1959, the 13 banks made 2,378 loans to cooperatives totaling \$637 million.

Based on reports to the Farmer Cooperative Service, the total number of farmer cooperatives engaged in marketing farm commodities, purchasing farm supplies, and furnishing related services decreased from 10,051 in 1950-51 to 9,872 in 1956-57. During this period, marketing cooperatives declined from 6,507 to 6,267, while farm supply associations increased from 3,282 to 3,371. The decline in marketing associations is due largely to consolidations and mergers. The number of memberships, which includes duplications due to membership by many farmers in two or more associations has increased from 7 million in 1950-51 to almost 7.7 million in 1956-57. Net volume of business for all marketing, farm

supply, and related service cooperatives, after elimination of inter-cooperative business, was approximately \$8.1 billion in 1950-51 compared with \$10.4 billion in 1956-57. Farmers' equities (owner capital) in marketing, farm supply, and related service cooperatives totaled \$2.1 billion as of January 1958.

The organization and operation of cooperatives for supplying electric power to individual farms has been a significant development in the agriculture of the United States. In 1935, when the Rural Electrification Administration was established, only 10.9 percent of all farms in the United States had central electric service; by 1959, this percentage had risen to 96 percent. The Rural Electrification Administration is authorized to make loans for electric distribution, transmission, and generation facilities to bring central station service to rural people who did not have it. The loans, which must be self-liquidating within a 35-year period, bear interest at 2 percent. REA loans may be used to finance the wiring of farmsteads and the purchase of electrical appliances and plumbing. Such loans are made to the REA borrowers, which then make financing available to individual consumers. Usually, they are repaid over a period of 5 years.

As its part in the direct accomplishment of rural electrification, REA has loaned more than \$3.9 billion to 1,083 electric borrowers. They include 983 cooperatives, 49 public power districts, 27 other public bodies, and 24 electric companies. By July 1, 1959, almost \$3.4 billion had been advanced to borrowers. Their facilities include 1.4 million miles of line serving more than 4.6 million farms and other rural consumers in 46 States, the Virgin Islands, and Puerto Rico. More than half the United States farms that receive electric service are served by REA borrowers.

About 95 percent of the loans have been made to locally owned cooperatives, and these cooperatives provide service to nearly 95 percent of all consumers served by all REA electric borrowers.

The rural telephone loan program administered by the Rural Electrification Administration was authorized in 1949 by an amendment to the Rural Electrification Act. About 38 percent of all farms in the United States had telephones at that time, but many of the rural telephone systems were obsolete. Loans are made on a self-liquidating basis to telephone organizations with preference to existing companies and cooperatives. The program is required to be conducted so as to improve and extend telephone service to the widest practicable number of rural users. Unlike the electric program, under which the REA makes 100 percent loans, telephone borrowers are required to provide a part of the investment themselves.

9. Establishment of Rural Industries

Until recently, little effort had been expended on stimulating the establishment of small-scale industry in rural areas. Complete data on industrialization were not available at the time of preparation of this report; however, there is reason to believe that since 1946 the establishment of large-scale industries in rural areas has been of appreciable magnitude. Some impetus has been given to rural development by the U. S. Government program to give preference in awarding Government contracts to areas of current or imminent labor surplus.

Substantial improvement in public transportation since World War II has lengthened the commuting radius of industrial centers and a substantial part of the farm population now has the alternative of urban employment and a rural residence. Some industries have established bus routes through the countryside to provide rural people with transportation to and from their jobs in urban areas. Long-distance commuting to urban employment by people formerly employed in agriculture and now retaining a rural residence and by people engaged in part-time farming and part-time industrial employment has been observed frequently in many parts of the country, particularly in the South and Midwest.

The desirability of effecting an interindustrial reallocation of the human resource has long been recognized by agricultural economists and others concerned with the welfare of national population in general and of farm people in particular. As the agricultural population has limited spatial mobility in the short run, success in achieving occupational mobility rests heavily upon the establishment of industrial employment opportunities within commuting distances of existing farm residences.

The most significant step in recent years on the part of the United States Government to encourage the development of small-scale privately held rural industries is seen in a phase of the rural development program. This program has as one of its goals increased job opportunities by establishment of industries in low-income farm areas. Suggestions and recommendations for establishing more industry in low-income farm areas follow:

1. State and local assistance in leadership and counseling for developing local industry should be expanded. In the past, industries came into some regions without benefit of much local effort. In others, local action played quite a part. Sometimes the industry was given financial aid, sometimes publicity and promotion. Mississippi, for example, gave tax concessions to new industries to attract them to the State.
2. Appropriate agencies of Government should be enlisted to survey and report on the potential labor supply in rural areas. Federal policies on dispersal of industries, whether for security reasons or to permit more efficient use of the Nation's manpower, should consider this labor supply.

3. Research should be designed to explore the opportunities for new industries in rural areas; provide technical information on industries suitable for rural location; and improve the efficiency of industries processing or distributing farm products. This research would be intended for those who help decide on industrial enterprises and their locations. The State land-grant colleges and the State and Federal departments of agriculture, commerce, and labor might all make important contributions to such research.
4. Efforts should be undertaken to increase the use, processing, and productiveness of forests in the rural low-income areas. Although the major problem areas tend to be those with poor land, they also have the largest amounts of forest land and great opportunities for future industrialization in forest products.

No data are available at this time to indicate the extent to which the establishment of industry in rural areas may have reduced under-employment and increased the income of agricultural workers. Data available indicate, however, that since 1950 the farm population had declined 2,900,000, or 11.6 percent. In 1950, 16.6 percent of the total population were living on farms, while in 1955 only 13.5 percent were farm residents.

10. Rural Education

The dissemination of the knowledge gained from the research programs is primarily the responsibility of the State Colleges of Agriculture, the United States Department of Agriculture, and the State and Federal Extension Services. Starting in 1862, with the passage of the Morrill Act, a series of Federal acts have assisted in establishing in each State (through the proceeds from land grants) colleges of agriculture and mechanical arts and in the financing of experiment stations.

Typically, the land-grant colleges offer work in such fields as agricultural economics, agricultural education, animal husbandry, dairy husbandry, entomology, chemistry, agronomy, horticulture, forestry, rural sociology, soils, and veterinary medicine. Degrees are offered such as Bachelor of Science, Master of Science, and Doctor of Philosophy. These institutions also provide many specialized short and nondegree courses ranging from 1 week duration to 2 years.

The Smith-Hughes Act of 1917, as expanded by further legislation in 1924, 1931, 1946, and 1950, provides for the promotion of vocational education (including vocational education in agriculture) and for the training of teachers in this field.

Vocational training in agriculture is provided in more than 10,000 secondary schools, including vocational schools or schools in which vocational agricultural training is offered as part of the curriculum. At present, more than 400,000 students are receiving vocational agricultural training in these schools. The curriculum is built around the farming needs of the local community. Federally reimbursed departments of vocational agriculture are required to make provision for directed or supervised practice in agriculture for at least 6 months a year on a farm provided by the school or on some other farm.

An important stimulus to the training of agricultural technicians and farmers has come from the programs of the Veterans Administration for the rehabilitation or readjustment of veterans of World War II and the Korean conflict. Two types of training were available; veterans could participate in a type of "on-the-farm" training, where they carried on a farming operation and received individual and classroom instruction from a teacher trained in agriculture. More than 850,000 veterans have received vocational agricultural training of this type. Veterans could also enroll in college and pursue a course of study leading to a degree. More than 3½ million veterans received college training under this program. Of these, more than 860,000 were enrolled in agricultural colleges. For both types of training, the Federal Government made a substantial contribution to the veteran to defray living expenses and to help cover the cost of tuition and materials.

11. Agricultural Research

Publicly supported research in agriculture is carried on largely through the system of agricultural experiment stations cooperating with the United States Department of Agriculture. This research is widely supported also by farmers, farm organizations, industry, universities, and research foundations.

The experiment stations came into being as a result of the Land Grant College Act in 1862 and the Hatch Experiment Station Act of 1887. There is now at least one experiment station in each State, usually in connection with a land grant college. Approximately three-fifths of the publicly supported agricultural research is carried on at the State agricultural experiment stations. These stations are independent, scientific establishments whose directors are responsible only to their respective land-grant colleges and states. The Federal Government, through the Secretary of Agriculture, provides approximately one-fourth of the financial support of these institutions, as well as technical service in planning, coordination, and review of research.

The importance of agricultural research is illustrated by the advances in productivity on farms. In 1890, shortly after the passage of the first Hatch Experiment Station Act, one farmworker produced food and fiber for less than 6 persons, including himself. By 1957, one farmworker produced the food and fiber used by more than 23 persons. The gain in output per man in nonagricultural industry from 1950 to 1957 was 14 percent, whereas in agriculture the gain in output per man was 39 percent, or more than 5 percent annually. Most of this progress can be attributed directly to advances brought about by agricultural research.

All research using Federal-Grant Funds is approved by the United States Department of Agriculture. Records are maintained on more than 12,000 research projects and are reviewed and summarized biennially. Most of these projects are located in, and administered by, the individual State experiment stations. More than 12 percent of the research funds available to the stations, however, is devoted to 199 regional and interregional research projects. Occasionally, research resources of the station are combined on a long-term basis with those of another institution and government agency to work on a special topic. An example is the legal-economic research of the Agricultural Law Center in Iowa.

Most of the research in agriculture has been concerned with immediate solutions to problems confronting farmers. Recently, however, increased emphasis is being placed on fundamental research. In 1958, the Federal Government spent about 8 percent of its research funds for basic studies. The Department of Agriculture spent about 17 percent and the Agricultural Research Service about 25 percent of its research resources on basic research.

Agricultural research receives about half of its financial support from Federal and State Governments and about half from industry, agricultural business, foundations, and other nongovernmental sources. About

\$118 million was appropriated in 1959 by the Federal Government for agricultural research. Nearly \$30 million of this appropriation is Federal-Grant payments to State experiment stations. More than 11,000 persons are engaged in research activities in the United States Department of Agriculture. There are 9,000 workers engaged in at least part-time research in the State experiment stations. (Note: the 11,000 and 9,000 are not additive due to difference in the definitions and overlap of the two groups.)

Research findings are published and disseminated through technical journals, books, bulletins, and press releases. In cooperation with extension and educational agencies, research results are made available to farmers and others in improving production, processing, and distribution methods. Many of the research results are also used by workers in related fields with consequences far beyond the effects on agriculture.

12. Agricultural Extension Services

Since the passage of the Smith-Lever Act of 1914, results of agricultural research have been carried to farmers through a joint Federal-State program of rural education through demonstration and dissemination of information. Extension staffs in more than 3,100 counties conduct demonstrations, provide technical information, assist in developing farm youth activities (4-H), carry on educational work in home economics, and serve as a channel of information between the Federal and State agricultural agencies and the farm communities. In 1959, extension personnel numbered 14,649, about 11,000 of which were located in county offices. Of the total budget of \$135 million, 40 percent is paid by the Federal Government, 37 percent by the States, 22 percent by counties, and 1 percent by private organizations.

County Extension Agents rely heavily upon voluntary, local leaders to help them carry out extension educational programs. Approximately 1.3 million local leaders helped in extension work as project leaders, subject matter leaders, and members of county advisory and planning committees.

Extension programs have been initiated to assist farm families in achieving higher production goals and improving family living conditions, to assist farmers in their marketing problems, to aid in rural development, and to carry out a program of education in public affairs.

Farm and home development program. To give more assistance to farm families individually and to help them make more extensive use of research information on production, marketing, nutrition, home management, and other family activities, the Cooperative Extension Service has intensified its efforts toward informational assistance for individual farm families.

Recent increased funds of Federal, State, and local origin have been used to add personnel to provide this additional assistance. Special emphasis is given to individual counseling with families in developing and executing their own farm and home plans. Contributions of subject-matter specialists and local extension agents are made in the interests of the entire farm and home. Four-H club members (youth belonging to young people's organizations sponsored by the Extension Service) are urged to make their agricultural and home-making project work fit in with the family's goals and help it attain its objectives.

Young married couples are especially benefited by the development of a plan of efficient, productive farming and satisfying rural living. Families lacking an adequate income are shown alternatives whereby they may increase the returns from their land, labor, management, and other resources. Extension workers do not prepare individual farm plans but assist families by providing record forms and information to help interpret their present position and analyze proposed changes.

Careful study and selection of alternative choices in the search for solutions to the family's problems are made. Decisions are based on needs and desires, farm and family resources, economic trends, available markets, capital, and labor supply. Some changes are made at no increase in cash outlay; others require a source of credit and a plan for repayment of debt. Home improvement and family satisfactions are given serious consideration in developing the family plan.

More than 11,000 of the 70,000 farm families given such assistance in 1958 reached the point at which they could carry out their own plans without further special assistance. This freed extension agents to extend the more intensive educational assistance to families in other communities.

Although the major extension effort is still devoted to assisting the nearly 4,000,000 farm families with their production efficiency and management problems, an increasing percentage of extension time is devoted to assistance on marketing, public affairs, and community-development problems.

Extension marketing. An important part of the work of the Cooperative Extension Service is the distribution of information to farmers. In addition, extension attempts to induce far-reaching improvements in marketing and distribution through its educational program with processors, wholesalers, retailers, and consumers. Attention has been devoted to the improvement of management of agricultural firms through education and advances in communication.

Rural development. The Cooperative Extension Service has performed a key role in the interagency Rural Development program. To a large extent, the program is implemented at the local level by the county Extension agents and other Extension personnel. The Rural Development program is being carried out in 62 "pilot" counties and 12 other areas. Work is taking place in 30 States and Puerto Rico.

Public affairs. Extension has undertaken to help farm people understand the public issues that affect them. It does not try to determine the policies that rural people should follow. Instead, its educational programs in public affairs aim to give farm people (1) a more active interest in public affairs, (2) a better understanding of the policies and principles involved, (3) a sound basis for examining evidence critically and for arriving logically at intelligent decisions, and (4) a greater desire to participate effectively in solving public problems.

13. Agricultural Labor Standards

In general, legislation covering wages, hours, and conditions of employment has not been developed as extensively for agricultural labor as for industrial labor. There is, however, increased pressure toward broadening the legal protection of agricultural labor. The problems of farm workers have been under scrutiny in recent years, and a number of legal remedies have been proposed. At present, however, most of the basic laws applying to farm labor are those pertaining to employer-employee relations, and which are of universal application. But some measures of both Federal and State origin, have been enacted to improve the status of the farmworker.

Wages. There is no Federal minimum-wage regulation generally applicable to agriculture. Under the provisions of the Migrant Labor Agreement with the Government of Mexico, Mexican nationals brought into the United States for farmwork, must be paid the prevailing wage in the area, as determined by the Secretary of Labor. Also, under the Federal Government's sugar-production program, minimum-wage rates are set for workers producing sugar beets and sugarcane. Under State minimum-wage laws, minimum-wage rates set in Alaska, Hawaii, Nevada, Puerto Rico, and Wisconsin apply to agricultural workers (in Nevada and Wisconsin for women and minors only and in Alaska for women only).

Wage rates of agricultural labor, however, have increased significantly in recent years because of the favorable nonfarm employment opportunities available.

Workmen's compensation laws in 15 States provide some coverage for agricultural employment. There is a definite movement in the other States to extend the benefits of this law to farmworkers. Several States - Connecticut, Maine, Montana, Pennsylvania, Rhode Island, and Washington - have laws that specify that there shall be no discrimination in wage rates paid men and women for the same work performance.

Employment Contracts. There is no Federal regulation of employment contracts. The State of Washington has recently enacted a comprehensive law regulating labor contractors, and New York, Oregon, and California have improved their laws on the subject.

Hours. Except for the States in which hours of children in farm work are limited, hours of work of adult agricultural workers are not regulated by State or Federal law. Holidays with pay are not the subject of legal regulation in the United States. Rarely are such arrangements provided for through collective agreements or by direct agreements between the worker and his employer.

The hours of work for women employed in agriculture are not customarily regulated by law.

With respect to the age of child labor, the Federal law establishes a 16-year minimum for employment of children during school hours. Nine States and Territories apply a minimum age ranging from 12 to 14 for employment outside school hours. Hours of work are regulated in about a third of the States.

Education of workers' children

Nearly all States now have laws requiring school attendance by children in both urban and rural areas. Minnesota, Montana, Nebraska, New Hampshire, South Dakota, and Utah have strengthened their school-attendance laws to give further protection to children working in agriculture during school hours. Minnesota requires completion of the ninth grade in place of the eighth before a child can leave school. The others eliminated provisions whereby children under 16 might leave school to go to work.

Old Age and Survivors Insurance

The 1954 amendments to the Social Security Act extended the Old-Age and Survivors Insurance program to the great majority of hired farmworkers. The amendments provide old-age and survivors insurance coverage for agricultural workers who are paid \$150 or more in cash wages by, or work 20 days or more for, an employer during a calendar year. The 1950 amendments to the Social Security Act covered about one-half million regular farmworkers. The 1954 amendments were expected to expand coverage to about 1.5 million additional farmworkers.

Although some farmworkers continue to be excluded, as for example some of the short-time migratory farmworkers, the excluded group consists for the most part of housewives, children, and semiretired persons who are only marginally attached to the labor force and who do farmwork for a few weeks during the peak harvest season.

Social security coverage was also extended to farm operators and many landowners.

Farm Labor Camps

Several State legislatures have improved their farm labor camp codes in recent years. The President's Committee on Migratory Labor has prepared a model camp code containing suggested standards in construction, operation, and maintenance of agricultural labor camps, which will be forwarded to the States for such action as they find appropriate. These suggestions cover such matters as the camp site, water supply, types of construction, minimum space requirements, garbage and sewage disposal, heating facilities, lighting, washing, and cooking facilities.

Union Membership

There are no Federal or State laws restricting the organization of trade unions among agricultural workers. Relatively few such workers have been organized. There is only one union of agricultural workers, the National Agricultural Workers Union (American Federation of Labor), which has about 12,000 members. The United Packinghouse Workers of America (Congress of Industrial Organization) has organized several thousand fruit and vegetable workers, largely on the west coast. About 4 million persons perform some farmwork for wages during the year. The average number of farmworkers employed at any one time is about 1.9 million.

14. Allocation and Development of Water Resources

Laws regarding the allocation of water resources in the United States are primarily State rather than Federal laws. Although there are many variations, the riparian and prior appropriation doctrines are the two principal methods of allocating waters in natural watercourses.

The riparian doctrine is in force in most Eastern States. Under it, the owners of the lands adjoining a watercourse usually have exclusive or preferred rights to use its waters. Ordinarily each may use as much of the water reaching his land as he needs for domestic purposes, that is, for household use and for watering some cattle and a garden. Subject to such domestic needs, each may also be permitted to make some reasonable use of a watercourse for irrigating his crops and for other purposes. But if the watercourse is navigable, such rights are subservient to public rights to use it for navigation and, in several States, certain other public purposes.

The prior appropriation doctrine is in force in the States that comprise roughly the western half of the United States (although in some States the riparian doctrine is in effect also). Under it, he who first obtains an appropriative right to use a watercourse acquires a right to continue to use its waters beneficially and is accorded exclusive priority over later appropriators. Thus, appropriative rights are placed on a first-come, first-served basis. The water may be used on adjoining lands or lands more distant from the watercourse. Moreover, in the arid or semiarid Western States, where most of the agricultural irrigation takes place, irrigation is often accorded preferential treatment over several other types of use.

The principal doctrines applied to the allocation of percolating groundwater include (1) the absolute ownership doctrine, (2) the reasonable use doctrine, (3) the correlative rights doctrine, and (4) the prior appropriation doctrine, which is in use in a number of Western States. In general, the first doctrine allows a landowner to withdraw and use or sell all the water he can obtain from beneath his land. The second doctrine prevents the use of such water on distant lands if neighboring landowners are injured. The third doctrine limits the use of water on overlying land to some reasonable amount, considering the needs of other overlying landowners.

In recent years, with expanding supplemental farm irrigation, municipal, industrial, and recreational uses of water, some of the humid Eastern States have required that water-use permits be obtained from the State, particularly as they pertain to surface watercourses. Some of these laws are similar to the Western prior appropriation laws, but most are different because under many of them, among other things, a water-use permit may be readily revoked or modified.

The legal framework provided by the principal water rights doctrines has been modified in many ways. Many of the supplemental irrigation systems in the humid Eastern States are individual farm enterprises. But much of the irrigation water in Western and some Southern States is distributed to individual farmers through such group enterprises as irrigation districts or mutual irrigation companies, which may invoke various rules regarding its distribution. Some irrigation water is supplied by multiple-purpose group enterprises or by projects conducted by State agencies. Such districts or agencies, however, may need to purchase land or employ eminent domain powers to acquire needed rights to construct dams and store and distribute the water.

The Federal Watershed Protection and Flood Prevention Act, which was enacted in 1954, authorizes the U. S. Department of Agriculture to provide technical and financial assistance to local districts, political subdivisions, or State or local agencies to construct and operate dams and other improvements in small watersheds for the purpose of conserving, developing, utilizing, or disposing of water and helping to control floods. Farmers often take a leading role in such projects.

The Federal Government has paramount rights for the protection of the interstate navigation system. It may also construct and operate dams and other structures for flood-control and land-reclamation purposes. A number of western farmers obtain their irrigation water from such Federal projects. In addition, the Federal Government may extend credit to farmers for irrigation purposes and may provide financial and technical assistance in the construction of farm ponds or other structures.

15. Rural Zoning

Zoning is a method by which county, township, or other unit of local government can exercise control over the use of privately owned land and property to promote public health, safety, morals, or the general welfare. Land uses and activities that conflict are kept apart by enactment of local laws called zoning ordinances which:

1. Divide the community into suitable districts or zones for agriculture, residences, business, forestry, recreation, and so on, and then
2. Apply appropriate use, building-height, and building-tract or lot regulations within each district.

Most of our States have granted the zoning power to all or to selected classes of their respective counties, townships, or other local governmental units. The powers granted vary widely throughout the Nation. These powers can be enlarged upon or withdrawn at the will of the legislature. The power to zone is permissive. Local units of government may exercise all of the powers granted, some of them, or none at all. Zoning ordinances, in general, cannot change uses of land in effect at the time of their passage, but can limit future uses.

Rural zoning has been used widely in the United States in two types of problem areas--the forest-farming fringe and the urban fringe. Both areas have experienced major land use maladjustment and rapid change. Many zoning ordinances that established forestry and recreation zoning districts were passed by counties in Wisconsin and adjacent States in the 1930's and 1940's. In recent decades in many States, numerous zoning ordinances have been passed to guide residential growth and to protect agriculture on an expanding urban fringe.

Zoning in the forest-farming fringe. Serious land use and taxation problems faced the people of northern Wisconsin in the early 1930's. The lumbering era was over. Young forest growth had not been protected from fires, which were considered beneficial because they helped to clear the land. Although farm settlement had been widely promoted, the shift from forestry to agriculture did not occur at the rate expected. Soils were of poor quality for farming, but many isolated farms were started. This scattered settlement necessitated high taxes to provide even minimum school, road, and other public services. The deepening depression brought major tax delinquency.

More realistic uses of cutover lands were sought. It soon became obvious that the forests must be restored. The objectives and tasks of zoning were to separate forest land from farmland, to aid the blocking-up of public and private forests, to prevent the wasting of labor and capital on barren lands, to guide prospective farmers to better soils in established farm communities, to help remove the hazard to new forests from fires caused by clearing and brush burning, and to assist in reducing the cost of road, school, and other public services.

The zoning ordinances that were passed by about 30 Wisconsin counties provided, in part, for the creation of forestry--recreation zoning districts, in which new farms or new permanent rural residences were prohibited, and for the creation of unrestricted districts in which new farms were permitted.

The initial objectives of rural zoning in the cutover counties of Wisconsin and adjacent States have been largely attained.

Zoning in the urban fringe. During the last few decades an explosive suburbanization has occurred in the United States. Around most cities, nonfarm homes are scattered widely among the farms. New subdivisions seem to have leapfrogged over available land nearer town. The new mixture of land uses--residences, business, industry, and agriculture--has brought about many new conflicts between farm and nonfarm users of land.

Each community decides for itself what it wants zoning to do about these problems for local agriculture. Then it designs farm-zoning districts and related regulations that will further its objectives.

Farm zoning districts implement their objectives by enclosing agricultural areas in which most kinds of farming are permitted, but objectionable business and industrial uses are excluded. Thus the building of nonfarm homes is discouraged by requiring minimum building lots or tracts that range up to 5 acres or forbidding construction of nonfarm homes in agricultural areas.

16. Technical and Financial Assistance for Land
and Water Resource Development

Technical services, cost-sharing, and other forms of assistance are provided under various authorities to individual farmers, groups of farmers, and State and local organizations in developing and managing land and water resources.

Research, extension, and other informational activities that provide farmers and others with the understanding necessary for decisions are supported by various forms of direct assistance through technical services and financial aids. The main agricultural development aid programs administered by the Department of Agriculture consist of technical services and cost-sharing assistance in establishing conservation practices on individual farms and aid to local resource organizations in carrying out works of improvement on watersheds.

Technical services and other assistance is provided to soil conservation districts and individual farmers in the planning and installation of soil and water conservation programs. Programs emphasize such water-related practices and measures as terraces, contour farming, cover cropping, stripcropping, pond construction, tree planting, diversion construction, drainage, preparation of land for irrigation, and improved water application. At the beginning of 1958, organized soil conservation districts covered about $4\frac{1}{2}$ million farms, with a total area of $1\frac{3}{5}$ billion acres, more than a billion of which was land in farms. Soil surveys for farm planning had been mapped for almost 560 million acres and almost $1\frac{1}{5}$ million basic farm plans had been prepared.

Cost-sharing assistance and financial incentives in the form of payments are provided to farmers for a part of the cost incurred in adopting specified soil and water conservation practices. Types of water-related measures and practices eligible for cost sharing include terraces, diversion and spreader devices, and waterways, vegetative cover, planting trees and shrubs, competitive plant control, drainage, land leveling, storage-type dams and reservoirs, and emergency measures for the repair and restoration of land and facilities damaged by floods. Two or more farmers may obtain assistance for joint undertakings in solving community conservation problems under a pooling agreement.

Cost-sharing assistance is given for voluntary participation only, and is limited to soil and water resource conservation practices. Practices having development of new land as their primary purpose are excluded, and annual payments to an individual are limited.

The Watershed Protection and Flood Prevention Act authorizes assistance to local organizations for planning and carrying out works of improvement for flood prevention and for water conservation, development, utilization, and disposal on watersheds of less than 250,000 acres. Provisions include technical assistance, engineering services, financial assistance or credit, or both for land-treatment and structural measures on private

or public lands for flood and sediment damage abatement, irrigation and drainage, fish and wildlife development, and municipal and industrial water supplies. The act provides for the coordination of watershed improvements with major river developments.

Earlier legislation authorizing the installation of generally similar types of measures include the Flood Control Act of 1944, which authorized flood-prevention activities in 11 authorized watersheds, and the Department of Agriculture Appropriation Act of 1954, which implemented watershed-protection measures in pilot watersheds.

At the beginning of 1958, 310 projects had been approved for planning under the Watershed Protection and Flood Prevention program, and 60 for operations. The pilot program was under installation in 58 projects comprising 3,300,900 acres in 32 States. Under the program in 11 authorized watersheds, flood-prevention work plans had been prepared covering more than half of the area of 30,997,037 acres authorized for improvement; 528 floodwater structures had been installed or were under contract; and more than 7,000 stabilization structures had been established.

Other programs providing financial assistance to agricultural interests participating in water-resource and related land development include mainstream flood control and irrigation.

17. Recent Changes in the Tenure Pattern of
the United States

A dominating feature of the agrarian pattern of the United States in recent years is the reduction in farm numbers, expansion of farm size, and the economic and social integration of agriculture with the rest of the economy. These changes have occurred largely because of technological improvements in farming and superior opportunities for farm population in other industries. Many of these adjustments in the agrarian structure were initiated by individual operators without explicit governmental policy or program.

The increase in farm size has been accompanied by a change in the tenure pattern--the ascendancy of part ownership--largely as a result of a reduction in numbers of tenants. Well over half of the land is rented by persons who own part of the land they operate; the average size of these farms is more than three times that of farms of full owners or tenants. Leasing by part owners is either a means of expanding farm operations rapidly without increased land investment or of acquiring larger units. Security of tenure or status of ownership is secondary to expanding farm size and increasing income.

The increase in farm size has been quite equally distributed among operators, that is, the proportions of farmland operated by large and small owners have remained about the same. Ownership of land, too, is held by fewer owners but the distribution of land held among large and small owners has changed little in recent years. In the Great Plains, for example, the average ownership unit increased from 570 acres in 1945 to 640 acres in 1958, yet the proportions of land held by the small and large owners remained about the same. In general, no limitations are imposed by the Federal or State governments on the amount of land owned by an individual. Restrictions on the amount of land that may be held and the length of time it may be held by corporations exist in some States.

The desire to increase farm size, restrict liability, reduce problems of transfer, and obtain large amounts of capital has aroused interest in the corporate form of farm tenure. Less than half of 1 percent of the farms and less than 8 percent of the present farmland are held by corporations, but this device has recently received much interest and its relative importance is expected to increase.

Closer integration of preproduction, production, processing, and marketing is appearing in several parts of the agricultural industry. By means of oral and written contracts, management, risks, resource inputs, decisions on product quality, and marketing procedures are being negotiated by farmers with processors, suppliers, and other business firms. There is considerable interest in the long-run effects of contract farming on production, control of entry, and the socio-economic status of farmers. Little is known of these effects generally.

The desire to combine the desirable features of rural and urban living has induced a large number of families to combine nominal farm operations with nonagricultural employment. Although they represent an insignificant portion of total agricultural production, part-time farming and rural residences represent an important aspect of integrated rural-urban society.



